KF-100A

Installation
Repair Parts List

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Models KF-100A Flux Holding Oven
Installation Instructions & Repair Parts List

One Year Limited Warranty

Henkel, Inc. warrants its products against defects in material and workmanship. Henkel, Inc. will either repair or replace without charge any properly installed product which fails under normal operating conditions within one year from date of installation, provided it is returned to our factory, transportation prepaid, and our inspection determined it to be defective under the terms of this warranty. The warranty covers only equipment manufactured by Henkel, Inc., and does not extend to transportation, installation, or replacement charges at the buyers' facility; nor does it apply to any other equipment of another manufacturer used in conjunctions with Henkel, Inc. equipment. No other warranty, expressed or implies exists beyond that included in this statement.

Keen Ovens

Model KF-100A Flux Holding Oven

Specifications

Capacity	125lbs Flux	
Voltage (Specify)	120V	240V
Wattage	500W	500W
Thermostat	Factory Preset/ Field Adjustable	
Temperature	Preset 275ºF : Range 100ºF-400ºF	
Insulation	2" Thermal Insulating Wool	
Interior Dimensions	12" X 16" X 22"	
Net Weight	95 lbs.	
Shipping Weight	170 lbs.	
Shipping Dimensions	30" X 48" X 30"	

Recommended Spare Parts

When it is critical to have continuous operation of this unit;
we suggest having the following spare parts on hand:

Heating Element Assemblies
Thermostat

General Information

The model KF-100A is a portable hopper style flux oven capable of storing 125 pounds of welding flux. Flux is top loaded by way of a removable door and discharged through a slide valve located on the bottom of the unit.

Safety Precautions

Read all instructions completely before attempting to operate this unit.

*** SAVE THESE SAFETY INSTRUCTIONS ***

To reduce the risk of electrical shock, fire, or personal injury follow the guidelines below:

- Before connecting unit to a power source, be sure the voltage supplied is the same as that specified on the nameplate of the unit.
- Check outlet to ensure proper grounding of the electrical cable. Have a licensed electrician check the A/C power outlet if you are not sure.
- Use this unit for its intended purpose as described by literature.
- Make sure power cord is located so that it will not be stepped on, tripped over, or otherwise subjected to stress of heat, oil, or sharp edges. Do not close doors on the cord.
- To reduce the risk of damage to the electric plug and cord, disconnect by plug rather than by the cord.
- Do not use this unit if cord or plug is in poor condition. If it has been exposed to weather or immersed in water, have a qualified serviceman inspect and replace parts as necessary.
- WARNING! NEVER HANDLE PLUG, CORD, OR UNIT WITH WET HANDS OR WHILE STANDING IN WATER.
- Use special care when moving heavily loaded units.
- Do not store combustible material on or around the unit.
- Do not operate this unit empty.

- When using the unit at a distance where an extension cord becomes necessary, a 3-conductor grounding cord of adequate size must be used for safety, and to prevent loss of power and overheating. Use only a UL listed extension cord suitable for outdoor use. Make certain wire size is large enough for A/C amperage rating of unit.

Operation

Load oven with flux. To turn unit on, simply plug the power cord into the appropriate single phase A/C power source. (See oven nameplate for voltage rating.) Indicating light glows when power is being supplied to the heating elements. Plugs are not supplied on 240-volt models due to the many different receptical configurations in the field. All units meet electrical code requirements when used with a grounded power source.

*****CAUTION: DO NOT USE ON D/C POWER SUPPLY! *****

The KF-100A is designed to vent around the perimeter of the lid. In instances where there is high moisture content in the flux, the interior of the lid is designed to channel condensation into the well built into the top lip of the oven.

Temperature Setting

The thermostat on the model KF-100A is factory preset at approximately 275ºF but has a range of 100º - 400ºF. To adjust temperature setting, disconnect oven from power source, then remove snap-in plug from element cover. This exposes thermostat adjustment screw. Using a small screwdriver, adjust set screw until desired temperature is attained. (Turning set screw counter clockwise increases temperature, turning set screw clockwise decreases temperature.) One-quarter turn equals approximately 35ºF. Replace snap-in plug and reconnect oven to power source.

Guide to Storage

See the enclosed guide to storage. This guide may be used in the absence of storage information from the flux manufacturer. In critical situations, contact your flux manufacturer.

Functional Description

The model KF-100A is a portable hopper style flux oven designed to hold 125 pounds of welding flux at moderate optimum temperature. Temperature is regulated by a field adjustable thermostat with an indicating pilot light, and monitored with a bimetal thermometer. This oven may be used as a portable unit or may be readily attached from its carrier and mounted directly to the welding manipulator. The model KF-100A is insulated with a full 2” of thermal insulating wool and is equipped with lifting lugs.

Scheduled Maintenance

The manufacturer recommends that the operator periodically clean all flux residue from heating elements and brackets. Excessive flux buildup on elements may cause hot spots and shorten element life.

Troubleshooting

The Keen oven model KF-100A requires a minimal amount of electrical knowledge to repair if necessary.

IF OVEN FAILS TO OPERATE – NO HEAT

1. Check power source.
2. Check power cord continuity. Replace cord assembly if faulty. (Strain relief may have to be removed from power cord to gain access.)
3. If cord and power supply check okay, remove leads from thermostat terminals and check for continuity across terminals. If continuity is not present across thermostat terminals, replace thermostat.
4. If thermostat is good, check continuity of elements and element wiring. If elements or wiring are faulty, replace.

IF OVEN OVERHEATS

1. If oven overheats, adjust thermostat. (See “Temperature Setting” section.)
2. If thermostat calibration fails to lower temperature, replace thermostat. (See “Corrective Maintenance” section.)

IF OVEN HEATS BUT FAILS TO REACH TEMPERATURE

1. Calibrate thermostat. (See “Temperature Setting” section.)

Corrective Maintenance

CHANGING THE HEATING ELEMENTS

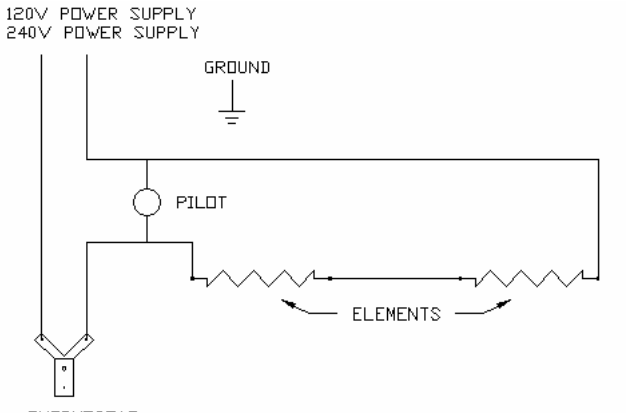
1. Disconnect power source and empty oven of flux.
2. Remove element cover and leads from elements (Note: power cord strain relief may have to be removed to gain clearance.)
3. From interior of oven, remove elements from clips and pull elements free of hopper wall.
4. Replace new elements and electrical leads being sure terminals are not shorted to oven body. Replace element cover.

CHANGING THE THERMOSTAT

1. Disconnect from the power source.
2. Remove element cover (Note: power cord strain relief may have to be removed to gain clearance).
3. Remove electrical leads from thermostat and remove thermostat from mounting bolt.
4. Replace and rewire new thermostat being sure terminals are not shorted to oven body. Do not over tighten elements mounting bolt.

KF –100A 120V / 500W
Wiring Diagram

KF –100A 240V / 500W
Wiring Diagram

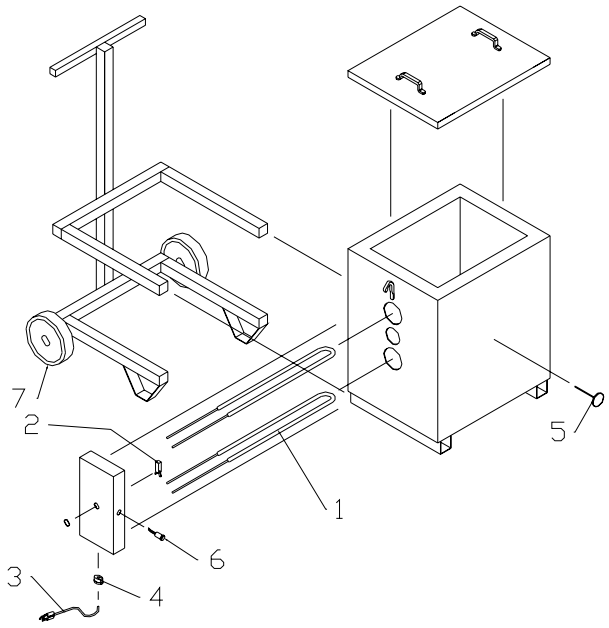


Model KF-100A Repair Parts List

ITEM #	QUANTITY	DESCRIPTION	PART NUMBER
1	1	* Elements 120V	301023
		W/T 240V	301026
3	1	Power Cord	301018
4	1	Strain Relief	301043
5	1	Thermometer	301127
6	1	Pilot Light	301085
7	2	Wheel	460106
2	1	Thermostat	301024

** Please state model number and serial number and specify voltage and wattage when ordering repair parts, spare parts, or accessory parts. All necessary attaching hardware is supplied with each part ordered.

(Item numbers refer to pictorial drawings below for repair parts.)



HENKEL, INC.

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Flux and Electrode Stabilizing Guide

Type (AWS)	Air Conditioned Storage Before Opening	Dry Rod Oven Holding After Opening	After Exposure to Moisture a Sufficient Time to affect Weld Quality	
			Recondition Step 1	Rebake Step 2
Standard EXX10 EXX11 EXX12 EXX13 EXX20 EXX30	80°F ± 20° 60% ± 10% RH	140°F ± 30°	180°F ± 25° two hours	240°F ± 25° one hour
			Three hour total	
Iron Powder EXX14 EXX24 EXX27	90°F ± 20° 50% RH max	140°F ± 30°	180°F ± 25° two hours	325°F ± 25° one hour
			Three hour total	
Iron Powder-Low Hydrogen EXX18 EXX28	90°F ± 20° 50% RH max	400°F ± 50°	180°F ± 25° two hours	700°F ± 100° one-half hour
			Two & one-half hour total	
Low Hydrogen EXX15 EXX16	90°F ± 20° 50% RH max	400°F ± 50°	180°F ± 25° two hours	600°F ± 100° one-half hour
			Two & one-half hour total	
Low-Hydrogen High Tensile EXXX15 EXXX16	90°F ± 20° 50% RH max	400°F ± 50°	180°F ± 25° two hours	700°F ± 100° one-half hour
			Two & one-half hour total	
Stainless Inconel Monel Nickel Brasses Bronzes Hard Surfacing Special Alloys	90°F ± 20° 50% RH max	225°F ± 50°	180°F ± 25° one hour	350°F ± 50° one hour
			Two hour total	
Granulated or Agglomerated Flux	90°F ± 20° 50% RH max	240° F ± 50°	Not required	700°F ± 100° ∅ two hours

IMPORTANT:
This table is offered as a guide to proper storage and oven holding temperatures for the most common electrodes in use today. In addition, recondition/rebake procedures for electrode coatings that have been exposed to moisture for a sufficient period of time to affect the weld quality are included. Good judgment and the manufacturer's recommendations should be your guide.

Note: In the HTS Stainless electrode groups, and 15 & 16 type coatings, there can be a greater difference in the maximum temperature requirements for rebaking than those shown. This can be handled by special request to the particular manufacturer involved.

CONTACT YOUR ELECTRODE MANUFACTURER FOR SPECIFIC INFORMATION INVOLVING CRITICAL OPERATIONS.

Electrode coating should not be exposed to the rebaking temperature without first having been reconditioned at a lower temperature. Failure to observe this rule will result in breakdown of electrode coatings.

After rebake, lower temperature to *holding level* until reissue.